

## PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE Caribbean Education Development CXC/USAID Secondary Curriculum Development Subproject			2. PROJECT NUMBER 538-0029	3. MISSION/AID/W OFFICE RDO/Caribbean
			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) TERMINAL <input type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	
5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING	7. PERIOD COVERED BY EVALUATION
A. First PRO-AG or Equivalent FY <u>79</u>	B. Final Obligation Expected FY <u>83</u>	C. Final Input Delivery FY <u>84</u>	A. Total \$ <u>4,239,132</u> B. U.S. \$ <u>2,618,132</u>	From (month/yr.) <u>July 1979</u> To (month/yr.) <u>December 1983</u> Date of Evaluation Review <u>Sept. 22 - Oct. 14 1983</u>
8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR				
A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)			B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
<p>The Project has achieved all the objectives which were set in the Project Paper and in fact, has surpassed almost all of these objectives. Nevertheless, for the purpose of continued and long-term development of secondary education in the region, there will be need for ongoing attempts to:</p> <p>a) review CXC syllabuses developed under the Project;</p> <p>b) review the teacher and student materials developed under the Project;</p> <p>c) develop additional teacher and student materials based on the syllabuses developed;</p> <p>d) disseminate more widely the teacher and student materials developed;</p> <p>e) orientation of teachers to CXC syllabuses;</p> <p>f) develop new syllabuses.</p>			CXC, with or without the assistance of AID	on-going
9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS			10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT	
<input type="checkbox"/> Project Paper <input type="checkbox"/> Implementation Plan e.g., CPI Network <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> Financial Plan <input type="checkbox"/> PIO/T _____ <input type="checkbox"/> Logical Framework <input type="checkbox"/> PIO/C _____ <input type="checkbox"/> Project Agreement <input type="checkbox"/> PIO/P _____ Not applicable			A. <input type="checkbox"/> Continue Project Without Change B. <input type="checkbox"/> Change Project Design and/or <input type="checkbox"/> Change Implementation Plan C. <input type="checkbox"/> Discontinue Project Not applicable	
11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)			12. Mission/AID/W Office Director Approval	
Dr. Ambrosio Ortega - Human Resource Development Officer Mr. Stafford Griffith - Senior Education Project Manager Mr. Wilfred Beckles - Registrar, Caribbean Examinations Council (CXC)			Signature _____ Typed Name <u>William B. Wheeler, AID Director</u> Date _____	

PROJECT EVALUATION SUMMARY - PART II13. SUMMARY

The Caribbean Education Development Project comprises three subprojects: the Primary Curriculum Subproject executed by the University of the West Indies (UWI); the Secondary Curriculum Development Subproject implemented by the Caribbean Examinations Council (CXC); and the Primary School Construction and Rehabilitation Subproject whose executing agency is the Caribbean Development Bank (CDB). Only the first of these three subprojects is still being implemented: the other two have been completed.

The Caribbean Education Development project seeks to enable the human resources of the Caribbean to achieve their full potential through the improvement of the learning environment for the primary and upper secondary age groups.

The Secondary Curriculum Development Subproject (hereinafter referred to as the Project) attempted to improve the quality of the learning environment for the upper secondary school age group by upgrading the quality of the curriculum and instructional approaches used in secondary schools. It also attempted to strengthen the Caribbean Examinations Council (CXC), a regional institution established and supported by fourteen (14) Commonwealth Caribbean Governments. The project, a four-and-a-half year effort (1979-1983), tried to accomplish its objectives through a series of regional, subregional/territorial and local workshops.

The implementation of project activities was seriously hampered during the first year by delays in employing urgently needed staff both to assist the project Coordinator faced with increasing demands on her time and to serve as Local Coordinators at the territorial level.

Despite these delays, Project implementation greatly accelerated subsequently and the project came to have an impressive positive impact on the territories of the region. A review of the CXC documents, internal evaluations and reports as well as the field studies in which the External Evaluation Team has been involved, provided evidence of a project that has been carefully planned, well organized and effectively implemented with a positive record of accomplishment.

A most important achievement of the Project has been the clear emergence of CXC as an educational agency which can assist long-range improvement and development of secondary education in the Caribbean.

The evaluators have reported that during the life of the project, there have been many specific and important achievements directed towards the realization of project goals among them are the following:

(a) Fourteen territories have become partners in the project with direct involvement of Ministries of Education, the appointment of Local Coordinators to manage territorial project tasks, and the involvement of most secondary schools (including school administrators and teachers).

(b) A total of 264 regional, subregional and territorial workshops have been held involving the participation of almost 4,500 teachers and educators representing all territories. These workshops included planning seminars, as well as syllabus reviews, subject developments, editorial and psychometric workshops.

(c) A significant number of teaching-learning materials for both teachers and students have been developed, largely as an output of workshop activity. Although circumstances have militated against desired reproduction and dissemination of these materials, CXC is now in a position to accelerate the achievement of this task.

(d) An important beginning has been made in the development of a reference library at CXC. A total of 1,521 titles are already available and indexed for use.

(e) During the course of the project CXC has developed new syllabi and examinations for a number of new fields of study and has also revised a number of syllabi and examinations for fields of study which were in existence at the beginning of the project.

(f) In a relatively short period the new and revised syllabi, new and improved teaching methods and new teaching - learning aids have had an impact on students. This was evident in:

- (i) positive attitudes towards learning as well as higher levels of motivation;
- (ii) increased analytical performance and independent thinking;
- (iii) increased interest in study especially in those areas dealing with the Caribbean region;
- (iv) improved student performance in academic and practical subjects. (despite the evident difficulty of developing an evaluation design that measures the full extent of project influence in this areas.)

(g) The impact of the project on teachers has been varied and considerable. An increased number of teachers have:

- (i) become familiar with the content of CXC syllabi and the methods of teaching the subjects;
- (ii) learned to write curriculum materials;
- (iii) been able to utilize improved and varied school based assessment techniques, almost 800 receiving training in this area.

- (iv) through participation in workshops, been afforded the opportunity for professional exchanges with teachers from other schools and territories.
- (v) been able to extend their learning to their colleagues not attending workshops, through both formal and informal means of communication and sharing.

By the time the Project ended it had exceeded the objectives states in the Project Paper: whereas 11 syllabuses were to have been developed, 12 were either developed or revised; whereas 149 workshops had been planned, 264 were conducted; whereas 2,742 teachers were to have participated in workshops, 4,426 were actually trained; whereas 85,000 students were to have benefitted, a total of about 13,000, in fact, proved to be beneficiaries under the Project. All this was accomplished at no extra cost to the project. Although the project was extended for seven (7) months beyond its initial PACD, careful financial management and cost savings permitted the delivery of more services than were initially planned. Particularly noteworthy were the economies achieved in conducting territorial and subregional workshops.

Indeed, the external evaluators have concluded that:

"The CXC/USAID Project clearly served as a catalyst for the improvement of secondary education in the Caribbean region. In 264 workshops nearly 4,500 teachers and educators were trained in the areas of curriculum development and new teaching strategies including evaluation and testing. Ministries of Education were assisted in their responsibilities of providing educational leadership for their respective territories."

#### 14. EXTERNAL EVALUATION

##### Mid Project Evaluation

Prior to the external terminal evaluation of the project which is reported in this document, an external mid-project evaluation was conducted from June 28 to July 4, 1981 by Dr. Karl Massanari, Chairman of the present evaluation team (see below.) Although this evaluation was not initially planned as a element of the terminal evaluation, the recommendations in the report of that evaluation were used by the project staff as a basis for improving project implementation until its termination. The mid-project evaluation also provided an excellent basis for the development of the terminal evaluation plan.

##### Terminal Evaluation

The external terminal evaluation of the CXC/USAID Secondary Curriculum Development Project was conducted by a team of educators under the auspices of the International Council on Education for Teaching (ICET) which has its headquarters in Washington, D.C. The team comprised persons all of whom have had wide experiences in evaluating international education projects.

Three of the evaluators conducted a preliminary evaluation visit from January 17 to 24, 1983 to prepare for the terminal evaluation scheduled for later in the year. The team met with CXC and USAID Project personnel to study pertinent project documents and to develop evaluation criteria and procedures. They also paid advance visits to Belize and Jamaica. Immediately after this preliminary visit the members of the team prepared interview schedules/questionnaires to be used in site visit interviews with Chief Education Officers, local project coordinators, principals, teachers and students.

The external evaluation visit took place during the period September 22 to October 14, 1983.

The evaluation model followed by the External Evaluation Team is known as a "probity" evaluation technique. This consists of a selective sampling of internal evaluation findings regarding quantitative and qualitative outputs resulting from the project (e.g. syllabus review, teacher performance, teacher materials pupil materials), and an independent review of these findings in field sites as well as in the project's central administrative unit. The model also provides for an evaluation of project management, project institutionalization and the generalized impact of the Project on all aspects of the educational system. This is to say, that the approach consists of an "audit" of selected project achievements for the various outcomes anticipated in the Project Plan. The terminal evaluation therefore depended on a thorough ongoing internal evaluation.

(d) During the site visit between September 22 - October 14, 1983, the following activities and tasks were carried out:

- (i) intensive discussions with CXC staff;
- (ii) review of all project documents including final project evaluations;
- (iii) site visits to a total of 38 schools in eleven (11) of the fourteen (14) territories; (Information was sought by mail from the other three participating territories, but responses were not received.)
- (iv) a review at the CXC office of all material production and distribution and availability of teacher reference materials;
- (e) Compilation of all data, analysis of data and comparison with internal evaluation findings.
- (f) Review of preliminary findings with CXC staff and the Project Management Committee.
- (g) Submission of the preliminary report to CXC for an assessment of the accuracy of information, for comments and suggestions.
- (h) Review of the preliminary report in the central office of the ICET.

- (i) Inclusion in the report such activities and achievements of the project that took place during the period from October 15, 1983 until completion of the project on December 31, 1983.

It is important to point out that the findings and conclusions of the External Evaluation Team are based on data obtained from the following:

- (a) Interviews conducted in 11 territories using structured interview schedules as follows: (see Appendix II).

Ministries of Education - 11 Chief Education Officers, 26 other Ministry personnel, and 14 Local Coordinators;

Secondary Schools - 38 principals, 141 teachers, and 428 students;

CXC staff 10; CAST staff 2; UWI staff 2.

Total number of interviews 672.

- (b) Study of internal evaluation reports.
- (c) Examination and review of project annual and final reports syllabi, CXC examinations, as well as samples of teacher constructed tests, teacher materials developed in workshops, student materials developed in workshops, reference library in CXC offices, workshop reports, project financial reports, and other project reports and documents.
- (d) Discussions with CXC staff, CXC project staff, and USAID Personnel.

Findings of the internal evaluation process were corroborated by the studies undertaken by the External Evaluation Team. Team has indicated that because of the high degree of agreement and in view of the quality and comprehensiveness of the internal evaluation process, no effort is made in its report to list in considerable detail the large number of specific outcomes already clearly stated in the two-volume internal evaluation report.

#### 15. External Factors

(a) The Island of Anguilla: During the period of project implementation there was a major change in the constitutional status of one of the participating territories affecting the project. During the project design stage Anguilla was constitutionally part of the Associate State St. Kitt-Nevis-Anguilla but the island subsequently broke away from the island grouping even before project activity commenced. Thus, while St. Kitts Nevis continued to benefit from the project, work in Anguilla did not commence until much later, following the necessary approvals from USAID.

(b) Size of Education System: The project allocated resources on the basis of two size categories - what is called "the larger territories (Barbados, Guyana, Jamaica and Trinidad and Tobago)", and the smaller territories, which are the others. It designed one strategy for the former category and another for the latter. These two categories do not adequately or accurately describe the wide variation in the size of the secondary education systems in the Caribbean and consequently has led to different project outcomes in different countries. The problems encountered were experienced by the large and the very small.

For example although the standard of executing territorial teacher-training workshops in Guyana, Jamaica and Trinidad and Tobago was comparable with that in Barbados, the same coverage of teachers preparing students for CXC was not achieved. This is because Jamaica has 146 schools sending students for CXC examinations and about 2,500 teachers engaged in preparing them for it; Barbados, on the other hand, has 36 such schools and 500 such teachers. Thus the project in Barbados involved nearly 100 per cent of its teachers, as compared to only about 25 in Jamaica.

At the other extreme is Montserrat, British Virgin islands, Turks and Caicos and Barbuda where the secondary school systems are so small, involving one or two schools in some instances that it is not feasible to hold territorial and local workshops in each country.

(c) Peculiar geographic considerations: The project design did not take account of peculiar geographic circumstances that affect the participation of teachers at workshops and the visits of Local Coordinators to certain schools. We might cite three examples. The first is Belize which has a population of just over half that of Barbados, yet it is 48 times larger in land area. The population is therefore widely dispersed and so are the schools serving them. Another example is Guyana which is over 80,000 square miles in area and in which some secondary schools are located in towns more than one hour's flying time from Georgetown. A third example is St. Vincent and the Grenadines where a visit to Union Island (one of its dependencies) means air (or boat) travel and overnighing. All these factors pose problems for project implementation so that the failure to provide for these peculiar features means limitations in final achievement and outcome.

## 16. INPUTS

Details of inputs are shown below. A Statement of Expenses incurred by the Project at the time of writing this PES is shown in Table 1.

The external evaluators have noted that the Project seemed to have been financially well managed by CXC as evidenced by the careful filing and documentation of all project, including workshop, related expenditures.

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### A. Management

- |   |   |
|---|---|
| a) CXC AID-funded staff, costing \$116,000.                   | Approximated \$295,429 was expended on staff required to manage the project (See Notes #1 and 2 below). |
| b) Consultants costing \$48,000.                              | Approximately \$81,251 was utilized on Consultants.   |
| c) Local Co-ordinators (Replacement costs) costing \$235,000. | Approximately \$260,158 was expended on replacement costs for Local Coordinators.                       |

### B. Training (Workshops) (See Note #3 below)

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|---|---|
| a) 10 Regional Subject Development Workshops costing \$75,600.            | 28 Regional Subject Development workshops were held costing \$376,116.  |
| b) 17 Syllabus Review Workshops costing \$69,275.                         | A total of 43 workshops (19 syllabus Review, 11 Editorial, and 13 Planning) were held costing \$132,234.                            |
| c) 2 School-based Assessment Workshops costing \$30,080.                  | 2 School-based Assessment workshops were conducted costing about \$30,806.  |
| d) 40 Territorial Workshops costing \$411,120.                            | 137 Territorial Workshops were held, costing approximately \$160,436.   |
| e) 40 Evaluation/testing (i.e. Psychometric) Workshops costing \$179,800. | 34 Psychometric Workshops were conducted costing \$193,615. This includes a special study of the CXC Basic Proficiency Examination. |
| f) 40 Subregional Workshops costing \$262,000.                            | 22 Subregional Subject Development Workshops costing \$114,200.   |

### C. Travel

- |   |   |
|---|---|
| a) Management Committee Workshops costing \$22,680. | Approximately \$26,194 was expended to host a total of 5 Management Committee meetings. |
|---|---|



An additional amount of \$6,053 was spent in convening three (3) meetings of Chief Education Officers.

D. Materials Production costing \$199,500.

The sum of \$335,400 was spent on materials production, including the purchase of essential equipment (e.g. reader/printer, duplicator and photocopier) required for materials dissemination.

E. Data processing Development, costing \$320,000.

An amount of \$368,620 was spent on Data Processing Development including the rental of computer facilities, the purchase of a microcomputer and essential computer supplies.

F. Other Costs

a) Inflation (10% compounded annually). Amount that may be claimed \$285,576.

An amount of \$37,000 was claimed under the Head "Inflation."

b) Indirect Support Costs, amounting to \$123,721.

Approximately \$140,933 was claimed under "Indirect Support Costs."

c) Contingency, amounting to \$20,000.

Approximately \$11,517 was expended under "Contingency".

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TOTAL AMOUNT ALLOCATED \$2,618,130

TOTAL AMOUNT EXPENDED \$2,615,705  
BUDGET BALANCE \$ 2,425

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Note 1: It needs to be emphasized that where actual expenditures exceeded the amounts allocated in the original Project Budget Summary by more the 15 per cent, the necessary approvals were granted through appropriate Implementation Letters.

Note 2: It is pointed out elsewhere (see Section 22) that significantly more staff had to be recruited to manage the project than had been envisaged.

Note 3: In addition to these workshops, three (3) Management Workshops for Local Coordinators were also conducted costing \$23,122.

TABLE 1

STATEMENT OF EXPENSES INCURRED UNDER SUBPROJECT

<u>A. MANAGEMENT</u>	<u>Planned (LOP)</u>	<u>ACTUAL</u>
- Salaries (See Note #1)	399,200	636,838
- Travel (Mgt. Commit.) (See Note #2)	22,680	54,868
	<u>421,880</u>	<u>691,706.</u>
<u>B. DATA PROCESSING DEVELOPMENT</u>		
- Train. & Tech. Asst.	147,000	181,690
- Publications	2,000	-
- Rental NCS 7008 (See Note #3)	96,000	138,138
- Mini-computer (See Note #4)	50,000	20,042
- D.P. supplies	25,000	28,750
	<u>320,000</u>	<u>368,620</u>
<u>C. MATERIALS PRODUCTION</u>		
- Salaries (See Note #5)	66,000	104,072
- Procurement of Mats.	22,000	29,850
- Paper, ink, etc. (See Note #6)	80,000	158,329
- Distribution of Mats.	20,500	23,000
- Equipment	11,000	20,149
	<u>199,500</u>	<u>335,400</u>
<u>D. WORKSHOPS (See Note #7)</u>		
- Regional	398,235	562,278
- Terr./Subregional	847,920	468,251
	<u>1,246,155</u>	<u>1,030,529</u>
Inflation (10% comp. ann.)	286,876	37,000
Indirect Support (5%)	123,721	140,933
Contingency	20,000	11,517
	<u>430,597</u>	<u>189,450</u>
TOTAL	<u>2,618,132</u>	<u>2,615,705</u>
Amt. Unexpended	<u>-</u>	<u>2,427</u>
	<u>2,618,132</u>	<u>2,618,132</u>

- Note: 1 The fact that actual expenditure on salaries was much higher than anticipated was due to the following: the Project was extended for seven (7) months beyond the PACD, necessitating the payment of Project staff for a longer period than was anticipated; significantly more staff was appointed to manage the project (see Section 22); more full-time Local Coordinators were appointed in order to try to circumvent the inadequacies of part-time Local Coordinators (See Section 22).
- Note: 2 The increase was due to the fact that, despite the original Project design, it was subsequently thought necessary to convene special annual meetings of Chief Education Officers to facilitate coordination of the project at the territorial level.
- Note: 3 The increase was due to the extension of the PACD.
- Note: 4 The reduced expenditure under the line item is explained elsewhere (See Section 18).
- Note: 5 The unanticipated extensive involvement of CXC in materials development, materials dissemination and teacher, coupled with the extension of the PACD, accounted for the increased expenditure.
- Note: 6 It was felt that the Project impact would be enhanced through materials dissemination. As a result, an amendment was made to the Grant Agreement, by Implementation LLetter No. 15 dated August 22, 1983, to permit increased expenditure under this line item.
- Note: 7 Although less money was spent under "Subregional/Territorial Workshops" than was budgeted for, significantly more workshops were held. For example, 40 territorial workshops had been planned for but as many as 137 were held. The significant economies achieved by CXC in executing workshops should also be noted.

The results of a review of the planned and actual budget conducted by the office of the Controller, RDO/C, were summarized by that office as follows:

The "Statement of Expenses Incurred Under Subproject" shows substantial line item variations from the original Planned (LOP) Budget. However, the total amount expended over the duration of the Project remained the same. An analysis of each line item disparity indicated that the mid-Project redesign and several key staffing factors, not originally anticipated, necessitated substantial budget adjustments. While all of these factors are discussed throughout this evaluation, it is important to summarize these adjustments relative to the original financial plan of the project.

Within the category of "Salaries and Consultants" substantial line item adjustments were made as additional staff were employed. During the first year, a Senior Administrative Assistant and Clerk-Typist were hired to assist the Project Coordinator. These positions were not included in the original Project budget design. Additionally, increases in work loads during peak periods required the occasional employment of temporary help. This expenditure was also not anticipated in the Planned (LOP) Budget.

Other factors also affected planned expenditures for salaries and consultants. The original Project design called for subcontracting arrangements with five regional organizations to carry out project implementation. Only one of these arrangements materialized. As a result, it was necessary to hire additional in-house staff to administer the Project. During the first year it was also determined that the part-time status of Local Coordinators was insufficient to meet the demands of the Project. Consequently, these positions were increased to full-time status which in some cases also necessitated the recruitment of new personnel. Further, the country of Belize was later added to the Project which required hiring an additional full-time Coordinator. These changes all required adjustments to the Planned Budget and resulted in an increase in the "Salaries" line item.

In addition to budget modifications for additional salaries, funds were also transferred from several line items to "Salaries" to cover the cost of the mid-Project external evaluation, which was not underwritten in the original budget. The subsequent mid-Project redesign resulted in an overall budget adjustment in order to provide additional expenditures for the following activities: additional meetings for the Project Management Committee; annual meetings for the Chief Education Officers; Management Workshops for Local Coordinators; additional travel for Project staff; and, short-term training for teachers and Project staff. The redesign also called for greater emphasis on regional workshops rather than the sub-regional/territorial format which required an adjustment in the "Workshop" line item.

The mid-Project redesign also called for CXC's involvement in the development and dissemination of subject materials including the development of new syllabi for the subject areas of Chemistry, Biology and Physics. The addition of these tasks to the Project work program necessitated the purchase

of an audio-tape duplicator and photocopies, and increased expenditures for relevant materials and supplies as well as additional workshops required for syllabus review. Budget modifications were made in the "Materials Production" category in order to provide the additional expenditures in the relevant line-items.

Budget adjustments were also made in the "Data Processing Development" category, when it was decided not to purchase a mini-computer. Instead, these funds were reallocated to upgrade the data processing capability of CXC and to carry out an analysis of future needs in this area.

In addition to the changes described above, this Project had two extensions of the PACD which totalled seven months. As a result, budget modifications were made to several line items to cover additional staff salaries and equipment rental.

It should be noted that Annex I of the Grant Agreement contained a provision prohibiting line item changes over 15% of the Planned Budget amount in each category without prior approval of authorized representatives. This analysis indicated that in no instance was this provision violated. All major line item changes exceeding 15% were authorized through Implementation Letters No. 12, 14, 15 and 20.

## 17. OUTPUTS

Anticipated Outcomes During LOP	Interim Evaluation Comments
a) Secondary School syllabus developed in 11 subject areas: (viz. English, Mathematics, Geography, Caribbean History, Integrated Science, Spanish, Agricultural Science, Business Education, Social Studies, Home Economics and Industrial Arts).	New syllabuses developed in three Home Economics subjects and in Technical Drawing; revised syllabus in Geography completed; modified syllabuses circulated to schools in English, History, Mathematics, Agricultural Science, Social Studies, Integrated Science, Spanish; modification of syllabus in Office Procedures in process. (See Note #1 below)
b) Teaching materials for each syllabus developed.	<p>A total of 33 teaching aides or guides were developed and 42 others in progress when the Project ended. The 33 included: 17 in Social Studies, 13 in Geography, and one each in Industrial Arts, Agricultural Science, and English.</p> <p>Multiple copies of student materials - one each in social studies, geography and mathematics - were produced. Work continued on proposed student materials in English. Several of the larger territories also produced a substantial number of materials which were made available to the region through the Project.</p> <p>A collection of 1500 reference titles housed within CXC library with reprints available to secondary teachers in the Region. The collection comprises textbooks, dictionaries, journals, periodicals, microfiche, pictures, tapes, film-strips, etc.</p>
c) A total of 2,742 teachers and 28 Local Coordinators trained in materials development, content and classroom observation.	A total of 4,426 secondary school teachers, 28 Local Coordinators and other educational personnel were trained in 264 regional, subregional territorial and local workshops in

subject development, and in psychometric workshops. Data indicates that teachers have demonstrated improved competence in the selection and use of teaching strategies, in the production and use of teacher and student materials, and in test development and construction.

- d) More relevant examinations available in more subjects to a wider proportion of the student population. A total of 22 different examinations (2 levels by 11 subjects) to be set to reach an additional 25% of student population.

More relevant examinations are now available to a wider proportion of the student population. A total of 39 different examinations have been set, to reach about 60% more of the student population. These examinations have been set at either the Basic and/or General Proficiency Level in 22 subjects.

- e) CXC equipped and staff trained to carry out data processing responsibilities.

Data processing unit has been substantially improved and a fully functioning facility is in place which meet current needs. CXC has commissioned a study of its capability with projections to 1987.

Operating software for the entire examination cycle is in place, and annual data outputs for the entire examination process is currently being produced.

Three CXC staff members received overseas training in eight courses related to CXC data processing activities. In addition, a consultant was employed for the length of the project to assist CXC staff to develop an adequate and appropriate management information system.

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Note 1: Shortly before the active implementation of the project, CXC had succeeded in developing syllabuses in five subject areas - English A, Geography, Mathematics, Caribbean History and Integrated Science (Double Award). The project nevertheless made it possible for all other aspects of work on these subjects to be executed, including syllabus review, teacher orientation, psychometrics, and materials development.

It should be remembered, too, that three of these subjects are composite subjects each comprising several individual subjects. Business Education comprises the four (4) subjects Typewriting, Office Procedures, Bookkeeping and Shorthand. Industrial Arts also comprises four (4) subjects, Woodwork, Metalwork, Technical Drawing and Electricity; while Home Economics includes the three (3) subject, Home Management, Food and Nutrition, and Clothing and Textiles.

Finally the project enabled CXC to revise syllabuses to orientate teachers to the syllabuses in a number of other subject areas (including the separate sciences, Biology, Chemistry and Physics). In some cases materials development was also undertaken.

CXC has now become involved in twenty-six (26) subject areas.



## 18. PURPOSE

"We quote the Project purpose as follows:

The purpose of this subproject is to improve the quality of the curriculum and instructional approaches used in Secondary Schools. A related purpose is to strengthen the Caribbean Examinations Council (CXC), a regional institution established and supported by fourteen Commonwealth Caribbean Governments (Antigua, Barbados, Belize, BVI, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitt/Nevis/Anguilla, St. Lucia, St. Vincent, Trinidad and Tobago, Turks and Caicos Islands".

Following are the approved End of Project conditions with appropriate comments.

<u>End of Project Condition</u>	<u>Comments</u>
1. Revised syllabi being used by CXC as basis for testing programme.	12 Syllabi have been developed or revised by CXC and have been used as a basis for setting secondary school examinations.
2. Revised syllabi being used by teachers in the instructional programme.	All revised syllabi are now being used by teachers, although the number of syllabi used in particular cases depends on the school's subject options.
3. Greater variety of teaching materials being used in the schools.	Both the internal and external evaluators found that teachers were using a greater variety of teaching materials: they making adequate use of available materials in preparing lessons, using materials which are clearly relevant to the lesson content, use material which complement the method of teaching, using more learning aids, and using more learning resources.
4. Teachers employing new instructional methods including project learning.	Both the internal and the external evaluators found that teachers were employing new instructional methods. Through observations (made by the internal evaluators) as well as through questionnaires and analysis of examination questions, teachers were reported to: plan lessons in keeping with syllabus objectives, select content which is appropriate for the level of student ability, demonstrate knowledge of student matter, use

material which complement the method of teaching, encourage enquiry among students, use new and varied teaching strategies, teach more higher order learning skills, ask better questions, use more individualization of instruction, involve students more in classwork, sponsor more field trips, and make improvements in teaching syllabus content.

5. Teachers using broader content in the classrooms.

Very specific mention is not made by the evaluators regarding teachers use of broader content in the classrooms. They did, however, indicate that only a small impact was noted in the areas of using indigenous materials along with the recommended aids and equipment. They explained that this might be due to the fact that many project materials with a Caribbean orientation were not disseminated widely and that there was a lack of funds to purchase recommended aids and equipment.

6. More frequent teacher evaluations of student learning through teacher made tests and other instruments.

Both the internal and external evaluators reported that there was more frequent teacher evaluation of student learning. Teachers were: using new methods of evaluation, constructing better tests, using more and better multiple-choice items, and making improvements in the content of classroom tests. In general they evaluate their students better.

7. CXC offering examinations covering basic and general proficiency in its regular examination schedule.

By the end of the project in December 1983, CXC had offered examinations covering 19 syllabuses at the Basic Proficiency level and 20 syllabuses at the General Proficiency level. The total number of subjects involved was 22.

8. All hardware and software functioning to produce needed results on a yearly basis.

Most hardware and software functioning to produce needed results on a yearly basis. There were, however, some slight departures from the plans outlined in the Project Paper. (See Note #1 below).

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Note 1: As explained in a previous PES, CXC determined that the small computer to be purchased with the \$50,000 budgetary allocation would be too small to meet both its expanding needs and the recent demands by territories for assistance in processing their local examinations. CXC therefore approached other donors for financial assistance to purchase a larger computer and received from European Development Fund (EDF) a pledge for a substantial sum of money. Meanwhile Project Funds were used to purchase a microcomputer, to rent computer facilities, to train computer users, and to carry out an analysis of CXC's future needs in the area of data processing. It is also worth pointing out that during the life of the Project, special permission was granted to CXC to purchase a duplicating machine to facilitate the dissemination of materials produced under the Project.

## 19. GOAL/SUBGOAL

The goal of the Caribbean Education Development Project is to enable the human resources of the Caribbean to achieve their full potential. The objectively verifiable indicators of the goal as stipulated in the original Project Paper are (a) the reduction of unemployment levels (b) increase in productivity and (c) lower birth rate. The annual reports and statistics of Government are to be the means of verification. It would seem that this broad goal may be achieved in the long-term, not through this single project, but by the combined end result of several projects. Nevertheless the Secondary Curriculum Development Subproject contributed towards the accomplishment of this long-term goal inasmuch as the subproject has improved the quality of the learning environment for the upper secondary school age group.

## 20. BENEFICIARIES

The Project Paper states that the Principal beneficiaries of the Project will be estimated 85,000 secondary students and their 2770 teachers who will participate directly in project activities. Ultimately the entire regional population of 250,000 secondary students would be expected to share in the benefits of project activities as their results are disseminated over a period of years by the processes put in place by the project.

A total of about 133,000 secondary school students and 4,426 secondary school teachers did, in fact, benefit directly from the project. As the project materials continue to be disseminated beyond the life of the project and with the vast range of persons who have been involved - ministries of education, school administrators, the universities, teacher training colleges, and so forth - there is the likelihood that more and more persons will continue to benefit in the future.

## 21. UNPLANNED EFFECTS

In the previous PES we drew attention to an unexpected, though desirable development which surfaced in the form of requests by the smaller territories to hold local workshops which were not originally planned. Bearing in mind the potential of such workshops for accelerating Project impact, appropriate modification of the budget were made to provide partial support to the smaller territories for such local efforts. Indeed it is largely as a result of such initiatives that by the end of the Project, the objectives came to be surpassed.

In the previous PES we drew attention also to another unexpected development, namely, the pledge by the European Development Fund (EDF) to CXC of additional funds for a bigger computer than what would have been procurable under the Project. We have pointed out elsewhere (see Section 18) the alternative use that was made of USAID's financial allocation for a mini-computer.

It is also worth noting that although the amount of dissemination which took place under the Project was less than required to maximize Project impact, the actual amount which took place was more than planned under the Project. This point is made simply to highlight a fundamental problem envisaged even while the Project was being designed: that the dissemination of

teachers' guides and student materials beyond the subproject would be "uncertain". Indeed a beginning has been made with regard to dissemination but a great deal more needs to be done even beyond the Project to ensure the continued and increased impact of the Project.

## 22. LESSONS LEARNED

The external evaluators have indicated that the Caribbean Education Development Project, of which the CXC/USAID Secondary Curriculum Development Subproject is a component, is "literally the paradigm case in regional project management". The project involves one large development agency, USAID, three regional intermediaries (UWI, CXC and CDB) and 14 Caribbean governments (11 independent and 3 Associated States). The evaluators maintain that the outcomes of this project, in terms of organization and management, should be of interest to all bilateral and multilateral agencies making grants or loans to Caribbean countries, all regional organizations engaged in projects, of any kind, all Caribbean governments and perhaps even outside the Caribbean region. The evaluators have moreover developed a generalized regional project model which they have diagrammed in their report and whose major demands are implied in the paragraphs which follows. Some lessons learned from this project are as follows:

(a) There is some doubt about the feasibility of subcontracting arrangements as part of the project implementation process. It was intended that CXC would subcontract parts of the Project to five different organizations. However, only one of the subcontracts materialized, leaving CXC to bear virtually the whole burden of project implementation and making it necessary for additional Project staff to be hired to administer the Project.

(b) The Project design did not directly involved school administrators and subject associations where these existed. Both of these groups have vested interests in in-service training of teachers, material production and improved performance. Had such people been included from the outset, they would have assisted CXC in orienting teachers to the new syllabuses and materials and would therefore have further enhanced project impact. While some attention was given to these groups in some countries, any further activities and future projects in secondary education should try to include them in the conceptualization and implementation of the project goals.

(c) All levels of the Project were affected by the turnover of staff. Probably the area in which they were most noticeable was with teachers in the schools. It is well established fact that the rate of attrition of secondary teachers is higher than that of any other section of the teaching profession. Implications for governments, CXC and USAID are that using a purely inservice teacher training approach for a limited period of time is never going to have a lasting impact on the education system unless it is followed by some ongoing programme geared to the new recruits to the schools.

(d) It is well documented that in certain countries the Ministries of Education would not pay Local Coordinators any or the full amount of the allowance provided by the Project. The reason was that to follow the provision of the Project would change the pay position of the Local Coordinator relative to that of more senior officials within the Ministry of Education and government. Given the wide variation of material prosperity in

the Caribbean, the same level of competence and experience can be acquired for widely different prices in the different economies. A possibility for both USAID and CXC in the future is to build this variability into project financing.

(e) In a previous PES we have already pointed out the undesirability of recruiting part-time persons as Local Coordinators, as such persons tend to have a greater commitment to their primary duties than to Project work. This matter is briefly raised again in Section 23 of the present PES but it certainly constitutes one of the major lessons learned from this Project.

(f) Through no fault of the CXC the subcontract with CAST was the only one successfully negotiated of those originally anticipated in the project document. Because it was a first experience and the only subcontract it is instructive to examine the experience. CAST is a national institution with specialist expertise, a regional vision and has some experience of regional cooperation. From the experience of this project it would appear that - there are at least two problems - that do not affect regional institutions -- which CAST needs to solve. The first is banking arrangements, in so far as CAST is constrained by Jamaica's foreign exchange regulations which restrict its ability to transact business outside Jamaica. The second is easy and direct access to individuals and institutions in other countries inasmuch as ministries of education are more accustomed to dealing with international and regional institutions than with national institutions of other countries. There seems to be the need for regional dialogue at the level of the CARICOM Ministries of Education on this subject. It should be noted that whatever difficulties CAST experienced, CXC used its regional status to overcome them enabling CAST to perform satisfactorily its responsibilities under the terms of the subcontract. However, we highlight these points with the hope that where CAST is expected to operate regionally in future, it should be freed of these constraints and the ad hoc arrangements made to circumvent them.

One further point seems appropriate. Although a formal contract was signed by the CXC and CAST, both parties did not treat the relationship as a formal one. While this had several beneficial features, including the circumvention of constraints on CAST, it blurred the lines of responsibility and obligation.

(g) In any major project, and especially in one of the magnitude and importance of the CXC/USAID Secondary Curriculum Development Project, the need for a comprehensive and continuing evaluation is paramount in order to determine the success of the project and to identify both strengths and weaknesses. The external evaluators have stated that the internal evaluation by CXC has been an "excellent" one. Regular reports, quarterly and annual, cover virtually every aspect of project goals and tasks - planning and management, syllabi development, construction of new and revised examination, inservice teacher education, the actual development and dissemination of materials, competence and performance of teachers, student achievement, and the enhancement of data processing by CXC. The external evaluators drew attention to the excellent field evaluation undertaken by CXC staff. This evaluation involved a careful sampling of schools and teachers from the 14 territories. The lesson to be learned from all this is that a careful internal evaluation design must be built into any major project of this nature.

(h) The essential aspects of the generalized project model developed by the evaluators are as follows:

- (i) An initial effort prior to the development of a project proposal is the careful assessment of needs of the region. It is essential at this early stage that representatives of the nation or region to be served be intimately involved in the determination of needs.
- (ii) Essential to the success of the project is the development of a clear and comprehensive statement of goals that can serve as the directing force behind the effort. The goals must be consistent with the needs assessment as well as achievable in terms of both the period of time available to the project and the extent of financial support provided. Finally the goal statement need not be static but must be subject to constant review in the light of changing conditions.
- (iii) A partnership approach to educational improvement is an important asset both in the planning and the implementation stage of a project. Where it is applicable efforts must be made to involve groups of individuals and/or organizations with a common stake in the improvement of education. An essential element in the plan is the development of a project model design - a model that focuses on the goals to be accomplished, methodologies and strategies to be employed, the human and material resources to be utilized, the management structure, and the means for the constant involvement of the partners of the enterprise.
- (iv) an organization or agency must be responsible for the management of the total project effort. Provision must nevertheless be made for some type of advisory council or committee that represents the various partners involved as well as the different constituencies that are affected by the Project.
- (v) A plan for evaluation should be developed and put into action prior to the actual undertaking of the project itself. It should provide for the gathering of necessary baseline data. Also, the internal evaluation should be a continuous one so that appropriate modifications in project strategies can be made during the project effort. In addition, the plan should provide for external objective evaluations by a team of qualified personnel.
- (vi) Throughout the project, a programme of public information as well as a system of communication among all participants in the project is essential. If full co-operation is desired, then all partners in the process and all clientele must be informed of Project events at all times, must have the opportunity to voice both support and concern and must be heard by those responsible for direction and implementation.

- (vii) An integral part of the project should be a programme of dissemination of project outcomes - project reports, print and non-print materials of use to educational institutions exemplary practices that might be adopted by and or modified by others, curricular innovations, new and improved methodologies and strategies, new organizational schemes etc. While some outcomes may not appropriately be disseminated until the completion of the project, there are many types of materials as well as ideas and strategies that can be given preliminary appraisal and communicated to the field for further use as well as continued study and field testing.
- (vii) An important component of the project effort is one that is directed towards the institutionalization of project outcomes. The following outcomes have been firmly institutionalized at CXC: syllabus development; syllabus review; data processing. The project did not provide for the firm institutionalization of the following materials development; materials dissemination; and the orientation of teachers. Thus, in the those areas which have not been fully institutionalized, it means that there must be some organization or agencies that will need to assume certain specific responsibilities. Of course, CXC has the capacity to do so, if funds are available to it.

### 23. SPECIAL COMMENTS OR REMARKS

This section contains remarks on the status of recommendations made in the interim evaluation of the Project. It also contains a few relevant comments that have not been incorporated elsewhere.

#### Status of Previous Evaluation Recommendations

In the previous PES we recorded a number of issues which needed attention and we now report on the progress that was achieved during the remainder of the life of the project.

- (a) The employment of full-time Local Coordinators wherever possible within the constraints of the budget:- The interim evaluation report had noted that the lack of commitment of part-time Local Coordinators, who had to shoulder two jobs, was the most serious weakness in the Project. Efforts were made to increase the number of full-time Local Coordinators but success was limited and a significant number of the Local Coordinators continued to work on a part-time basis.
- (b) Ensuring that adequate clerical/secretarial staff is available to do Project work:- It had been noted that the failure of most of the subcontracting arrangements, whereby CXC would receive some relief from executing workshops, resulted in a tremendous burden on the Project administrative staff. Furthermore efforts to disseminate materials to an extent greater than was intended in the Project Paper, tremendously increased the work of the clerical/secretarial staff. Fortunately, the need for additional help were subsequently met by the Project.



- (c) The development of student aids in support of CXC syllabuses:-  
During the interim evaluation, it was pointed out that whereas the Project intended to prepare only a "limited amount" of teacher and student materials, maximum Project impact would only be achieved if significant amount of materials were produced and disseminated. The constraints involved were, however, made clear in the Project document. Subsequently CXC and USAID agreed to adjust the Project budget to permit the expenditure of larger amounts of money for the purposes of dissemination of the materials produced. The amount of money available for the purpose was clearly inadequate but has enabled a start to be made. Much more needs to be done.
- (d) Considering possible alternative uses of Project funds previously intended for the purchase of a small computer:- This matter has been discussed elsewhere (see Section 18) and the funds were deployed in other vital areas of data processing development.
- (e) Completing the collection and analysis of baseline data:- The interim evaluation had indicated that all the baseline data, required to establish the benchmark against which Project progress might be measured, had not been collected. Soon after, however, CXC made a determined effort to complete this task and successfully achieved its goals. The success of CXC's efforts are evident from the fact that the external evaluators, in their terminal evaluation, have given an excellent report of the comprehensiveness of CXC's internal evaluation efforts.

New Issue to be Addressed

The external evaluators have emphasized that in the long-term, the task of educational improvement in the Caribbean is demanding. The current CXC/USAID Project has made a significant contribution in assisting CXC in syllabus development, syllabus review and data processing. It has also assisted, to some extent, in materials development and teacher training. Nevertheless the continuing needs in secondary education are great and there is still the need for continued materials development, materials dissemination and teacher orientation to syllabuses and curriculum materials. In fact the entire spectrum of education, as it relates to the various levels of education (including the secondary level) as well as to human development and national needs, must be under careful study and scrutiny as part of a coordinated effort at educational reform and national development. USAID has made a very significant contribution but its needs to continue to assist the region.

ATTACHMENTS

1. Report of the External Terminal Evaluation of the CXC/USAID Secondary Curriculum Development Project. Submitted by Dr. Karl Massanari (Chairman), Dr. Paul Masoner, Dr. Errol Miller, Dr. Frank Klassen. 64 pp plus Appendices.

2. CXC/USAID Secondary Curriculum Project Summative Evaluation Report: Baseline and Terminal Data Comparisons. Prepared by Bertrand A. Drakes and Stafford A. Griffith, Members of the Internal Evaluation Team. 53 pp. plus Appendices.
3. Overall Workshop and Material Evaluation Report for the CXC/USAID Secondary Curriculum Development Project, September 1979 to August 1983. Submitted by Stafford A. Griffith, Member of the Internal Evaluation Team. 76 pp plus Appendices.